STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Illinois Commerce Commission	:	
On Its Own Motion	:	
	:	20-NOI-03
Notice of Inquiry regarding Rate	:	
Design and Affordability with respect to	:	
Transportation Electrification and	:	
Other Beneficial Electrification	:	

AMEREN ILLINOIS COMPANY'S INITIAL COMMENTS IN RESPONSE TO NOTICE OF INQUIRY

COMES NOW Ameren Illinois Company d/b/a Ameren Illinois (Ameren Illinois, AIC, or the Company) and respectfully submits the following Initial Comments in response to the Illinois Commerce Commission (ICC or Commission) Notice of Inquiry 20-NOI-03 (NOI) regarding Rate Design and Affordability with respect to Transportation Electrification and Other Beneficial Electrification.

The NOI solicits comments on the following questions set forth in the Commission's August 19, 2020, order initiating this Notice of Inquiry.

I. INTRODUCTION

Ameren Illinois appreciates the opportunity to submit these Initial Comments in response to the questions posed by the Commission in its NOI regarding rate design and affordability with respect to transportation electrification and other beneficial electrification. The Commission is seeking detail regarding rate design issues, including information on the impact of transportation electrification (TE) and TE infrastructure adoption and information on what specific rate designs could and should be adopted in Illinois to ensure that electricity rates do not impose barriers to TE and TE infrastructure adoption and deployment. The Commission is also seeking

information on the impact of electricity rate design on the deployment of beneficial electrification more broadly and information on what specific rate designs could and should be adopted in Illinois to ensure that electricity rates do not impose barriers to beneficial electrification adoption and deployment. The Commission is further interested in identifying the impact of such rate designs on electric service and, consequently, electric service affordability.

In responding to the questions proposed, Ameren Illinois will focus only on delivery service rates. Notwithstanding this approach, Ameren Illinois believes the real time pricing supply options Ameren Illinois is required to provide to its customers, including Power Smart Pricing, are, in general, beneficial supply options for TE, as they provide appropriate time-based pricing to encourage efficient use of generation facilities, and can reduce energy costs for customers. Ameren Illinois encourages electric vehicle owners to consider Power Smart Pricing and other time-based retail supply rates offered by Retail Electric Suppliers.

To the extent Ameren Illinois has not responded to a question posed in this NOI, the Company reserves the right to respond to comments put forth in the Initial and Reply Comments of other entities in subsequent rounds of comments as directed by the Commission.

II. RESPONSES TO NOI QUESTIONS AND ISSUES

A. Rate Design Impacts on Electric Vehicle Adoption and Use

1. EV Adoption and Use by Residential Customers Living in Single-Family Housing

a. Do current electric rate designs prevent residential customers living in single-family housing from adopting and using EVs? If so, how?

Ameren Illinois' existing residential delivery service rates do not prevent residential customers from adopting and using EVs. Ameren Illinois' Rate DS1, Residential Delivery Service, includes a monthly Customer Charge, a monthly Meter Charge, and a per-kWh Distribution

Delivery Charge for every kWh used during the month, regardless of end-use application. Therefore, the delivery of usage to charge an EV is treated the same as the delivery of usage for any other end-use application receiving delivery service on Rate DS1. An electric vehicle, on Ameren Illinois' existing residential delivery service rates, does provide a lower cost per mile of driving when compared to the cost per mile of driving a conventional vehicle using gasoline.

b. Should electric rate designs be used to encourage residential customers living in single-family housing to adopt and use EVs? Why or why not?

Ameren Illinois' rates are designed to reflect the manner in which costs are incurred and do not consider specific end use in delivery service rate design. However, Ameren Illinois believes there are rate mechanisms that can reasonably be put in place to encourage EV adoption, rates that build on Ameren Illinois' existing delivery service rate structure without requiring a separate meter. The Residential Program within Ameren Illinois' recently-filed Rider EVCP – Optional Electric Vehicle Charging Program (Rider EVCP), is an example of rate design that encourages the adoption of EVs for residential customers in a manner that does not require additional metering, supports EV adoption, enhances grid efficiency, and benefits all customers.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate residential customers living in single-family housing to adopt and use EVs?

Well-designed electric rates, such as those proposed in Ameren Illinois' Rider EVCP, can provide incentives to motivate residential customers living in single-family housing to adopt and use EVs, while at the same time they have the potential to lower all electric rates. For this reason, we are in favor of providing incentives (credits) for charging during low utilization times and providing higher price signals for charging during potential peak grid utilization times.

d. How do electric rate designs used to encourage single-family residential customers to adopt and use EVs affect the affordability of electric service for other electricity users?

If designed properly, the incentives that encourage efficient use of the delivery system will either not impact the delivery service rates of others or will reduce delivery service rates for all customers. If electric vehicle charging is added to times of low utilization of the electric grid, such that more kWhs of electricity are delivered without an accompanying increase in infrastructure cost, the delivery service rates will be reduced for all customers.

A poorly designed rate could lead to non-participating customers subsidizing the incentive as well as increases in distribution system investment.

2. EV Adoption and Use by Residential Customers Living in Multi-Family Housing

a. Do current electric rate designs prevent residential customers living in multi-family housing from adopting and using EVs? If so, how?

No. The primary barrier to adopting EVs for residential customers living in multi-family housing is access to charging and not rate design.

b. Should electric rate designs be used to encourage residential customers living in multi-family housing to adopt and use EVs? Why or why not?

Yes. As proposed in Rider EVCP, it should be easy and affordable for owners of multi-family facilities to install charging on their premises for use by tenants. The combination of a bill credit, incentive rates for effective grid utilization, and line extension policies can encourage multi-family building owners to install charging infrastructure for tenants, and therefore encourage those customers to adopt and use EVs.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate residential customers living in multi-family housing to adopt and use EVs?

As proposed in Rider EVCP, the same rate designs are appropriate for multi-family housing as those which are appropriate for residential customers. As stated above, the problem in multi-family housing is not rate design. The addition of new line extension policies for multi-family facilities that are included in Rider EVCP offer incentive to the owners of the housing facilities to

install charging equipment and resolve the access problem that is the primary barrier to adoption and use of EVs by multi-family housing residential customers.

d. How do electric rate designs used to encourage multi-family residential customers to adopt and use EVs affect the affordability of electric service for other electricity users?

As with residential rate design, if rates are designed properly, the incentives that encourage efficient use of the delivery system will also reduce delivery service rates for all customers.

3. EV Charging by Employees at the Workplace

a. Do current electric rate designs prevent businesses from installing EV charging infrastructure for their employees or employees from charging EVs at their workplaces? If so, how?

See Ameren Illinois' comments below in response to Part 4, Fleet Adoption and Use by Businesses.

b. Should electric rate designs be used to encourage businesses to install charging infrastructure and for employees to charge EVs at their workplaces? Why or why not?

Electric rate design can be used to provide price signals which will encourage businesses to promote efficient usage of the grid and benefit all customers. By offering businesses a way to charge at a lower rate during periods with lower grid utilization, such rate design might also incentivize businesses to install charging infrastructure for employees.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate businesses to install charging infrastructure and for employees to charge EVs at their workplaces?

Workplace rate design offers a challenge. Any electric rate design used to encourage businesses to install charging infrastructure should also encourage employers to promote efficient usage of the grid. Employers should have price signals for electric vehicle charging such that

vehicles are charged earlier in the day to avoid coinciding with a peak on the local distribution system.

d. How do electric rate designs used to incent businesses to install charging infrastructure and for employees to charge EVs at their workplaces affect the affordability of electric service for other electricity users?

If designed properly, rate designs that encourage business customers to adopt EV fleets can also encourage efficient use of the delivery system and reduce delivery service rates for all customers.

e. Provide examples of rate designs employed in other states or jurisdictions that successfully incentivized business to install charging infrastructure for employees and/or customers.

Ameren Illinois is not aware of delivery service rate designs in other states or jurisdictions that successfully incentivized business to install charging infrastructure.

4. EV Fleet Adoption and Use by Businesses

a. Do current electric rate designs prevent business customers from adopting and using EV fleets? If so, how?

Ameren Illinois' existing non-residential delivery service rates do not prevent business customers from adopting EV fleets. Ameren Illinois' Rate DS2, Small General Delivery Service, for non-residential customers with a demand less than 150 kW includes a monthly Customer Charge, a monthly Meter Charge, and a per-kWh Distribution Delivery Charge for every kWh delivered during the month, regardless of end-use application. Therefore, the delivery of usage to charge an EV is treated the same as the delivery of usage for any other end-use application receiving delivery service on Rate DS2.

Ameren Illinois' Rate DS3, General Delivery Service, and Rate DS4, Large General Delivery Service, are applicable to non-residential customers with demands at or over 150 kW, and include a monthly Customer Charge, a monthly Meter Charge, and a per-kW Distribution

Delivery Charge of billing demand for the month. Again, these demand-based delivery service rates make no distinction as to what end-use application is using electricity, therefore EV fleet charging is treated consistently with other end-use applications. Depending on the nature of the non-residential customer's business and vehicle fleet needs, the existing DS3 and DS4 rate structures encourage the adoption of EV fleets provided the customer's business allows for charging during the off-peak hours of 10 p.m. to 10 a.m. on weekdays, and any hours on weekends.

b. Should electric rate designs be used to encourage business customers to adopt and use EV fleets? Why or why not?

As a practical rate design philosophy, Ameren Illinois is cautious when considering the use of specific end-use delivery service rate designs, instead being in favor of whole premises rates that provide the appropriate price signals that enhance grid efficiency and provide fair cost recovery. Such end-use rates have been somewhat difficult to implement, in part because the end use needs to be metered or otherwise estimated, adding cost and complexity. However, Ameren Illinois believes there are rate mechanisms that can be reasonably put in place to encourage EV adoption, including by EV fleets, which build on Ameren Illinois' existing delivery service rate structure without requiring a separate meter. The Education Facility and Transit Facility programs within Ameren Illinois' recently-filed Rider EVCP tariff are examples of rate designs that encourage the adoption of EV fleet vehicles (school and transit buses and vehicles) in a manner that does not require additional metering, supports EV adoption, enhances grid efficiency, and benefits all customers.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate business customers to adopt and use EV fleets?

Examples of specific rates designs that would help to encourage business customers to adopt and use EV fleets are the Education Facility and Transit Facility programs proposed in

Ameren Illinois' Rider EVCP. These programs could be expanded, under the appropriate qualifications and limits, to encourage EV Fleet adoption beyond school and transit vehicles.

d. How do electric rate designs used to incent business customers to adopt and use EV fleets affect the affordability of electric service for other electricity users?

If designed properly, rate designs that encourage business customers to adopt EV fleets can also encourage efficient use of the delivery system and reduce delivery service rates for all customers.

5. EV Charging Station Deployment by Businesses for Customer Use

a. Do current electric rate designs prevent businesses from deploying charging equipment for customer use? If so, how?

No. As explained in the Company's response to Part 4(a), Ameren Illinois' existing non-residential delivery service rates do not prevent business customers from installing EV charging stations for customer use.

b. Should electric rate designs be used to encourage businesses to deploy charging stations for use by their customers? Why or why not?

As noted in the Company's response to Part 4(b), as a practical rate design philosophy, Ameren Illinois is generally cautious when considering the use of specific end-use delivery service rate designs, instead being in favor of whole premises rates that provide the appropriate price signals that enhance grid efficiency and provide fair cost recovery. Such end-use rates have been somewhat difficult to implement, in part because the end use needs to be metered or otherwise estimated, adding cost and complexity.

With the varying nature of each business, the time customers spend in the business whether it be a retail store, restaurant, or other business, and the varying usage pattern of each business, delivery service rate designs specific to customer charging for businesses would be impractical. In addition, the charging infrastructure would primarily benefit the patrons of a specific business,

rather than the public as whole, so the public benefits of any specific charging rate would need to be considered. Therefore, while there may be conditions where a regulatory mechanism would be appropriate to incentivize businesses to install charging infrastructure for their customers to help jump-start adoption of electric vehicles, any non-residential delivery service rate should continue to be agnostic to the end-use application, and should be used to provide price signals which will encourage businesses to promote efficient energy usage in a manner that supports the efficient use of the grid and benefits all customers.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate businesses to deploy charging stations for use by their customers?

For this specific application, while there may be conditions where a regulatory mechanism would be appropriate to incentivize businesses to install charging infrastructure for their customers to help jump-start adoption of electric vehicles, delivery service rates should continue to be agnostic to the end-use application and should be used to provide price signals which will encourage businesses to promote efficient usage of energy in a manner that supports the efficient use of the grid and benefits all customers.

d. How do electric rate designs used to incent businesses to deploy charging stations for the use of their customers affect the affordability of electric service for other electricity users?

Only if they improve grid efficiency, support lower costs for all customers, or transform the market for electric transportation in a way that will provide longer term grid and customer benefits will they positively impact the affordability of electric service for other electricity users.

6. EV Charging Station Deployment by Units of Government

a. Do current electric rate designs prevent units of government from deploying charging equipment for public use? If so, how?

No. See the Company's answer to Part 4(a).

b. Should electric rate designs be used to encourage units of government to deploy charging equipment for public use? Why or why not?

As noted in its response to Part 5(b) above, as a practical rate design philosophy, Ameren Illinois is cautious when considering the use of specific end-use delivery service rate designs, instead being in favor of whole premises rates that provide the appropriate price signals that enhance grid efficiency and provide fair cost recovery. However, similar to Ameren Illinois' proposed Multifamily Facility program in its recently-filed Rider EVCP tariff, a combination of supplemental line extension credits and time-based rate options could be appropriate for publicly-accessible charging equipment on a separate service point in appropriate public places, particularly in low-income, disadvantaged, or other underserved areas.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate units of government to deploy charging equipment for public use?

Rate designs to motivate units of government to deploy charging equipment should include a combination of supplemental extension credits and time-based rates to encourage installation of publicly accessible charging stations in public areas, particularly low-income, disadvantaged, or underserved areas.

d. How do electric rate designs used to incent units of government to deploy charging equipment for public use affect the affordability of electric service for other electricity users?

If appropriately designed and applied for an appropriate amount of time, such distribution rate approaches can help jump start the electric vehicle market, thereby putting downward pressure on all customer rates overall.

7. EV Adoption by Units of Government

In response to this Part, Ameren Illinois refers to its comments in response to Part 4 – Fleet Adoption and Use by Businesses. For non-residential delivery service rate design, units of government can be considered with business customers.

a. Do current electric rate designs prevent units of government from adopting EV fleets (e.g., school buses, mass transit) for public use? If so, how?

b. Should electric rate designs be used to encourage units of government to deploy EV fleets (e.g., school buses, mass transit) for public use? Why or why not?

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate units of government to deploy EV fleets (e.g., school buses, mass transit) for public use?

d. How do electric rate designs used to incent units of government to deploy EV fleets (e.g., school buses, mass transit) for public use affect the affordability of electric service for other electricity users and the affordability of public transit?

8. Commercial Charging Station Providers

a. Are current electric rate designs a barrier to the deployment of public EV charging by commercial charging station providers? If so, how?

For smaller public EV charging stations that are under 150 kW of demand and would therefore qualify for delivery service Rate DS2, there is not a current barrier. However, for larger EV charging stations that are over 150 kW demand (higher capacity Level III DC charging stations), that would take service on Ameren Illinois' delivery service Rate DS3 or DS4, there are potentially two barriers that Ameren Illinois' current delivery service rates may impose:

- Cost of utility line and service connections

- High overall cost due to demand-based rates for the low-load factor charging station, particularly in the early years of operation as electric vehicle adoption is still low.

b. Should electric rate designs be used to encourage the deployment of public EV charging by commercial charging station providers? Why or why not?

Yes, for larger Level III DC fast charging stations that are strategically located along major travel corridors. These Corridor Charging Facilities encourage the adoption of electric vehicles by providing 24/7 access to Level III DC fast charging in areas commonly traveled and easily accessible, mostly used during daytime hours when more travelers on the road. These facilities not only support intrastate and interstate electric vehicle travel through Ameren Illinois' service territory, they will also serve to increase range confidence (reduce range anxiety) for individuals who operate an EV within Ameren Illinois' service territory. By their nature, these facilities must be available when needed, so these facilities are not likely to be able to limit charging during on-peak hours when travelers are more likely to need charging. Because of the role they serve, Corridor Charging Facilities are likely to be high peak demand, low-load factor service points, particularly in the early years of operation until more electric vehicles are on the road.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate the deployment of public EV charging by commercial charging station providers?

A design such as that proposed in Ameren Illinois' Rider EVCP Corridor Charging Facility Program, that includes a supplemental line extension credit to reduce the cost to connect to the grid, and a rate limiter structure that caps demand charges to a per kWh charge equivalent consistent with a higher load factor service point in the early years of operation is one good example.

d. How do electric rate designs used to incent the deployment of public EV charging by commercial charging station providers affect the affordability of electricity service for other electricity users?

As mentioned above, appropriately designed rates that support the installation of Level III DC Fast Charging infrastructure in key locations along travel corridors encourage the adoption of electric vehicles which in the longer term will provide downward pressure on rates for all customers.

9. Low to Moderate Income Customer EV Adoption and Use

See the Company's responses to Subsection A(1).

a. Do current electric rate designs present a barrier to the adoption or use of EV technology by low to moderate income citizens? If so, how?

b. Should electric rate designs be used to encourage the use of EV technology by low to moderate income citizens? Why or why not?

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate the use of EV technology by low to moderate income citizens?

d. How do electric rate designs used to incent use of EV technology by low to moderate income citizens affect the affordability of electric service for other electricity users?

e. Are there other ways to provide benefits from EVs to low- to moderate-income citizens?

If electric vehicle rates for all customers are designed properly, the incentives that encourage efficient use of the delivery system will either not impact the delivery service rates of others or will reduce delivery service rates for all customers. If electric vehicle charging is added to times of low utilization of the electric grid, such that more kWhs of electricity are sold without

an accompanying increase in infrastructure cost, the delivery service rates will be reduced for all customers.

10. Environmental Impacts of EV Use

a. Do current electric rate designs prevent customers from using EVs in a manner that has a positive environmental impact? If so, how?

No.

b. Should electric rate designs be used to encourage customers to use EVs in a manner that has a positive impact on the environment? Why or why not?

The use of an EV when compared to the use of an internal combustion vehicle has a positive impact on the environment regardless of the manner in which it is charged. Time-based delivery service rate designs for EV charging, like the ones proposed in Ameren Illinois' Rider EVCP, will encourage charging at times that are more efficient for the distribution grid and will help reduce costs for all customers. The charging times beneficial for the distribution grid may also coincide with times that minimize the environmental impact of electric generation.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate customers to use EVs in a manner that has a positive impact on the environment?

Time-based delivery service rate designs for EV charging, like the ones proposed in Ameren Illinois' Rider EVCP, will encourage charging at times that are more efficient for the distribution grid and will help reduce costs for all customers. The charging times beneficial for the distribution grid may also coincide with times that minimize the environmental impact of electric generation.

d. How do electric rate designs used to incent customers to use EVs in a manner that has a positive impact on the environment affect the affordability of electric service for other electricity users?

Time-based delivery service rate designs for EV charging, like the ones proposed in Ameren Illinois' Rider EVCP, will encourage charging at times that are more efficient for the

distribution grid and will help reduce costs for all customers. The charging times beneficial for the distribution grid may also coincide with times that minimize the environmental impact of electric generation.

11. EV Use Impacts on Grid Costs

a. Do current rate designs incent customers to use EVs in a manner that reduces grid costs (e.g., distribution costs, transmission costs, capacity costs)?

Currently, Ameren Illinois' volume-based delivery service rates, Rates DS1 and DS2, do not have a time-based component, hence they do not provide a time-based price signal that would encourage charging at times that are better for the grid. However, Ameren Illinois' Rate DS3 and Rate DS4 are time- / demand-based, and do provide appropriate price signals to encourage EV charging in a manner that reduces grid impact.

b. Should electric rate designs be used to incent customers to use EVs in a manner that reduces grid costs? Why or why not?

Yes. Rate designs that incorporate time- or demand-based price signals encourage customers to charge at times that are more beneficial to the grid, thereby putting downward pressure on rates.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to encourage customers to use EVs in a manner that reduces grid costs?

Rate designs such as that proposed in Ameren Illinois' Rider EVCP program, specifically the Residential Home, Multifamily Facility, Transit Facility, and Education Facility programs, will encourage customers to charge EVs at times that benefit the grid and put downward pressure on rates for all customers.

d. How do electric rate designs used to incent customers to use EVs in a manner that reduces grid costs affect the affordability of electric service for other electricity users?

The designs such as those proposed in Ameren Illinois' Rider EVCP will help encourage EV adoption and increase delivered electric energy in a way that requires little or no additional grid infrastructure, thereby putting downward pressure on delivery service rates for all customers.

12. EV Use Impacts on Reliability and Resiliency

a. Do current electric rate designs prevent customers from using EVs in a manner that has a positive reliability and resiliency impact on the grid? If so, how?

As explained in Ameren Illinois' answer to Part 11 above, Ameren Illinois' delivery service Rates DS1 and DS2 are volumetric and not time-based, therefore they do not encourage charging at times that would be better for the grid. However, in addition to appropriate rate designs, for EVs to fully support and potentially improve grid reliability and resiliency they must have the capability to supply energy back to the grid upon request, known as vehicle-to-grid or V2G. The charging, communication, and grid infrastructures also must be in place to support V2G. In addition, there must be a valid economic benefit to EV owners and all customers for leveraging electric vehicles as an active grid asset. While there are some V2G technology pilots currently underway throughout the world, and there are some medium / heavy duty vehicles that are starting to offer V2G as an option, there currently are not any commercially available light-duty electric vehicles that have this capability.

Until this V2G technology is readily available and associated grid infrastructure is in place to support it, an electric vehicle resembles many other types of end-use device loads. As such, its ability to improve grid reliability and resiliency is minimal and limited to its ability to charge at appropriate times to either limit peak demands, or otherwise help to balance load with available generation.

b. Should electric rate designs be used to encourage customers to use EVs in a manner that has a positive reliability and resiliency impact on the grid? Why or why not?

Yes. Rate designs that incorporate time- or demand-based price signals encourage customers to charge at times that are more beneficial to the grid, thereby putting downward pressure on rates. However, until V2G technology is readily available, and associated grid infrastructure is in place to support it, an electric vehicle resembles many other types of end-use device loads. Therefore, rate designs should first focus on encouraging EV adoption based on currently available technology and making charging decisions easy for customers in a way that benefits the grid. These time-based rate designs are foundational for potential enhanced designs that may be appropriate in the future. At this stage of EV adoption in Illinois, complicating the transition by introducing rate designs that are premature could be detrimental to adoption in the longer run.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate customers to use EVs in a manner that has a positive reliability and resiliency impact on the grid?

Keep it simple, at this point, and focus on delivery service rate designs such as that proposed in Ameren Illinois' Rider EVCP program, specifically the Residential Home, Multifamily Facility, Transit Facility, and Education Facility programs, that will encourage customers to charge EVs at times that benefit the grid and put downward pressure on rates for all customers.

d. How do electric rate designs used to incent customers to use EVs in a manner that has a positive reliability and resiliency impact on the grid affect the affordability of electric service for other electricity users?

The designs such as those proposed in Ameren Illinois' Rider EVCP will help encourage EV adoption and increase delivered electric energy in a way that requires little or no additional grid infrastructure, thereby putting downward pressure on delivery service rates for all customers.

13. EV Rate Design Principles

a. Are there examples of rate design principles or rate designs, not addressed above, that would result in EV adoption or use in a manner that would be in the public interest? If so, please explain.

At this time, Ameren Illinois is not aware of any.

b. Are there examples of other mechanisms that may be used in conjunction with rate designs (e.g., pairing load management with rate design) that would result in EV adoption or use in a manner that would be in the public interest? If so, please explain.

See the Company's response to Part 13(a).

c. Please provide examples of rate designs employed in other states or jurisdictions that might serve as best practices with respect to EV adoption or use in Illinois

Ameren Illinois is not aware of delivery service rate designs in other states or jurisdictions that could potentially serve as best practices with respect to EV adoption or use in Illinois.

B. Rate Design Impacts on Other Forms of Beneficial Electrification

1. What types of beneficial electrification other than adoption of EV's should the Commission be examining?

While Ameren Illinois believes that on-road transportation electrification offers the most potential benefits for the grid, our customers, and the environment in the shorter term, the Commission should also begin examining other areas of beneficial electrification such as off-road transportation (forklift trucks, mowing equipment, golf carts, etc.), heating, cooking, water heating, and other appliances, and commercial and industrial process equipment.

2. Adoption and Use

a. Do current electric rate designs present a barrier to the adoption or use of each such other form of beneficial electrification? If so, how?

No.

b. Should electric rate designs be used to encourage the use of each such other form of beneficial electrification? Why or why not?

As a practical rate design philosophy, Ameren Illinois is generally cautious when considering the use of specific end-use delivery service rate designs, in favor of whole premises rates that provide the appropriate price signals that enhance grid efficiency and provide fair cost recovery. Delivery service rates should be designed to provide appropriate pricing signals to encourage efficient use of the delivery system and reduce delivery service rates for all customers. Such end-use rates have been challenging to implement, in part because the end use needs to be metered or otherwise estimated, adding cost and complexity. However, Ameren Illinois believes there may be occasions where specific end-use rate designs or other incentives may be appropriate to encourage adoption of a particular end-use electric technology to aid in a market transformation that will benefit the grid and all customers in the longer run. Such rate designs, if implemented, should be used thoughtfully, considering cost to implement and realizable delivery service benefits, and for defined periods of time to ensure they are achieving the appropriate market transformation results and are benefitting the grid and all customers.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate the use of each such other form of beneficial electrification?

Ameren Illinois believes that it is premature to offer any specifics at this time.

d. How do electric rate designs used to incent each such other form of beneficial electrification affect the affordability of electric service for other electricity users?

Any specific end-use rate design should benefit all customers in the long run or it should not be implemented.

e. Are there other ways to provide benefits from each such other form of beneficial electrification?

Ameren Illinois is not aware of any at this time.

3. Environmental Impacts of Beneficial Electrification Use

a. Do current electric rate designs prevent customers from using each such other form of beneficial electrification in a manner that has a positive environmental impact? If so, how?

No.

b. Should electric rate designs be used to encourage customers to use each such other form of beneficial electrification in a manner that has a positive impact on the environment? Why or why not?

Delivery service rates should be designed to provide appropriate pricing signals to encourage efficient use of the delivery system and reduce delivery service rates for all customers. The charging times beneficial for the distribution grid may also coincide with times that minimize the environmental impact of electric generation.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate customers to use each such other form of beneficial electrification in a manner that has a positive impact on the environment?

Delivery service rates should be designed to provide appropriate pricing signals to encourage efficient use of the delivery system and reduce delivery service rates for all customers. The charging times beneficial for the distribution grid may also coincide with times that minimize the environmental impact of electric generation.

d. How do electric rate designs used to incent customers to use each such other form of beneficial electrification in a manner that has a positive impact on the environment affect the affordability of electric service for other electricity users?

Delivery service rates should be designed to provide appropriate pricing signals to encourage efficient use of the delivery system and reduce delivery service rates for all customers. The charging times beneficial for the distribution grid may also coincide with times that minimize the environmental impact of electric generation.

4. Beneficial Electrification Use Impacts on Grid Costs

a. Do current rate designs incent customers to use each such other form of beneficial electrification in a manner that reduces grid costs (e.g., distribution costs, transmission costs, capacity costs)?

Currently, Ameren Illinois' volume-based delivery service rates, Rates DS1 and DS2, do not have a time-based component, hence they do not provide a time-based price signal that would encourage charging at times that are better for the grid. However, Ameren Illinois' Rate DS3 and Rate DS4 are time- / demand-based, and do provide appropriate price signals to encourage electric energy usage in a manner that reduces grid impact.

b. Should electric rate designs be used to incent customers to use each such other form of beneficial electrification in a manner that reduces grid costs? Why or why not?

Yes. Rate designs that incorporate time- or demand-based price signals encourage customers to charge at times that are more beneficial to the grid, thereby putting downward pressure on rates.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to encourage customers to use each such other form of beneficial electrification in a manner that reduces grid costs?

At this time, Ameren Illinois believes it is premature to offer any specifics, but in general, rate designs that incorporate time- or demand-based price signals encourage customers to charge at times that are more beneficial to the grid, thereby putting downward pressure on rates.

d. How do electric rate designs used to incent customers to use each such other form of beneficial electrification in a manner that reduces grid costs affect the affordability of electric service for other electricity users?

Rate designs that incorporate time- or demand-based price signals encourage customers to charge at times that are more beneficial to the grid, thereby putting downward pressure on rates.

5. Beneficial Electrification Use Impacts on Reliability and Resiliency

a. Do current electric rate designs prevent customers from using each such other form of beneficial electrification in a manner that has a positive reliability and resiliency impact on the grid? If so, how?

As explained in Ameren Illinois' response to Subsection A, Part 11 above, Ameren Illinois' delivery service Rates DS1 and DS2 are volumetric and not time-based, therefore they do not encourage operation at times that would be better for the grid. For the vast majority of end-use technologies, their ability to improve grid reliability and resiliency is minimal and limited to their ability to operate at appropriate times to either limit peak demands, or otherwise help to balance load with available generation. Therefore, providing appropriate time-based delivery service rates to encourage operation at times that would be better for the grid will, in general, help to support reliability and resiliency.

b. Should electric rate designs be used to encourage customers to use each such other form of beneficial electrification in a manner that has a positive reliability and resiliency impact on the grid? Why or why not?

Yes. Rate designs that incorporate time- or demand-based price signals encourage customers to charge at times that are more beneficial to the grid, thereby putting downward pressure on rates, and helping to support reliability and resiliency.

c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate customers to use each such other form of beneficial electrification in a manner that has a positive reliability and resiliency impact on the grid?

Ameren Illinois believes it is premature to offer any specifics at this time, but in general, rate designs that incorporate time- or demand-based price signals encourage customers to operate other forms of beneficial electrification at times that are more beneficial to the grid, thereby putting downward pressure on rates, and helping to support reliability and resiliency.

d. How do electric rate designs used to incent customers to use each such other form of beneficial electrification in a manner that has a positive reliability and resiliency impact on the grid affect the affordability of electric service for other electricity users?

Rate designs that incorporate time- or demand-based price signals encourage customers to charge at times that are more beneficial to the grid, thereby putting downward pressure on rates.

6. Beneficial Electrification Rate Design Principles

a. Are there examples of rate design principles or rate designs, not addressed above, that would result in each such other form of beneficial electrification adoption or use in a manner that would be in the public interest? If so, please explain.

At this time, Ameren Illinois is not aware of any.

b. Are there examples of other mechanisms that may be used in conjunction with rate designs (e.g., pairing load management with rate design) that would result in each such other form of beneficial electrification adoption or use in a manner that would be in the public interest? If so, please explain.

At this time, Ameren Illinois is not aware of any.

c. Please provide examples of rate designs employed in other states or jurisdictions that might serve as best practices with respect to each such other form of beneficial electrification adoption or use in Illinois.

Ameren Illinois is not aware of delivery service rate designs in other states or jurisdictions that could potentially serve as best practices with respect to other forms of beneficial electrification adoption or use in Illinois.

C. Rate Design Implementation

1. Please identify any rate design changes that you would recommend be adopted in Illinois, including the rate design changes addressed above.

As proposed in Rider EVCP, for customers with the flexibility to charge at times of the day that may provide benefits for the delivery service grid, such as residences, both single-family and multi-family, and facilities where buses will be charged, such as at schools and transit facilities, we recommend a time-based rate that offers both an incentive for charging at times unlikely to contribute to the local distribution peak and a disincentive for charging at times likely to contribute to an increase in the local distribution peak. For commercial facilities, such as corridor charging facilities, which might not have the ability to control the timing of their load, but which also are essential to the overall EV market development, a rate limiter should be adopted.

2. For any rate design change you recommend be adopted, please explain the process required to adopt such rate design change (e.g., requires a change in law, requires a change in Commission rules, requires a tariff change, etc.).

At a minimum, to enact a time-based rate would require tariff filings with the Commission. The inclusion of incentives or disincentives, other than appropriate pricing signals, in such time-based rates may require changes in law and / or Commission rules.

3. Please identify how your recommended rate design changes may affect low to moderate income citizens.

If designed properly, the incentives that encourage efficient use of the delivery system will either not impact the delivery service rates of others or will reduce delivery service rates for all customers. If electric vehicles charging is added to times of low utilization of the electric grid, such that more kWhs of electricity are delivered without an accompanying increase in infrastructure cost, the delivery service rates will be reduced for all customers. However, a poorly

designed rate could lead to non-participating customers subsidizing the incentive as well as increases in distribution system investment.

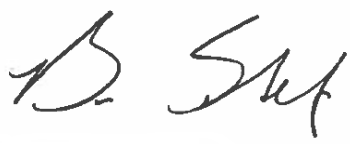
III. CONCLUSION

Ameren Illinois appreciates the opportunity to provide these comments in response to the Commission's Notice of Inquiry and looks forward to continued progress and discussion on important issues regarding transportation and other beneficial electrification.

Dated: November 16, 2020

Respectfully submitted,

AMEREN ILLINOIS COMPANY
d/b/a Ameren Illinois



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